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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hewlett-Packard Company
Intellectual Property Administration
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EXAMINER

HO, THOMAS M

ART UNIT	PAPER NUMBER
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2134

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DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/671,556

Applicant(s)

HEMSTREET ET AL.

Examiner

Thomas M Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-42 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 31, 42 are rejected as being anticipated in view of Morgan et al., US patent 5,220, 674.

In reference to claim 1:

Morgan et al. discloses a server for hard copy apparatus control comprising:

- Means for connecting the apparatus to a network. (Column 6, lines 5-10)
- Means for deciphering messages received via said means for connection based on data type and content, where the server receives data through the connection based on data type and content, and deciphers them into specific print instructions. (Column 6, lines 55-60)
- Means for routing deciphered messages received via said means for deciphering such that specific tasks associated with hard copy apparatus control are discriminatively routed,

where the deciphered messages are print instructions, routed to other components of the network(Column 7, lines 43-50), or routed within itself to access server resources, or routed to the printer. (Column 7, lines 20-50)

- Means for respectively receiving discriminatively routed messages and for executing said tasks, where messages are respectively received and discriminatively routed in a queue for execution. (Column 9, lines 38-47)

In reference to claim 31:

Morgan et al. discloses a method for operating a computer peripheral apparatus protected by a network firewall, comprising the steps of:

- Providing the apparatus with a server interface, where the server interface is the interface to the printer. (Column 16, lines 3-32)
- Storing predetermined subset of operational parameters of the apparatus wherein each subset is related to a remote client having access to the server interface, where the subset of operational parameters includes Control, end of job, Accepted, end of data, accepted, pending, completed and released. (Column 27, line 1 – Column 28, line 45)
- Upon a change of operational parameter state of said apparatus, determining if the change is associated with any said subset and sending an electronic message via said server interface to each client associated with said subset wherein in the message content includes notification of the change of operational parameter state, where if the change in status or state in an event occurs, the client is notified if it was specified as being of

particular interest to that client (Column 21, line 44 – Column 22, line 2) & (Column 22, lines 25-30)

In reference to claim 42:

Morgan et al. discloses a hard copy apparatus server comprising:

Computer code configured to abstract operational state parameters of at least one hard copy apparatus associated with said server, where the operational state parameters of the hard copy apparatus associated with the print server are abstracted to Accepting, Released, Completed, and Pending. (Column 28, lines 13-23)

Computer code configured to communicate with said computer code configured to abstract and said at least one hard copy apparatus via the internet using predetermined firewall penetrating protocols, where the computer code allows a user to communicate with a server to issue a print job to the printer, or using “a predetermined firewall penetrating protocol. (Column 30, lines 19-37)

Wherein a plurality of clients outside of said firewall can communicate substantially simultaneously with the at least one apparatus, where a plurality of clients outside communicating substantially simultaneous is understood to be present in a client-server protocol, which allows substantially simultaneous communications to be processed by a single server.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-30, 32-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al.

In reference to claim 2:

Morgan et al. discloses all of claim 2 except:

An electronic mail handler component including means for automatically sending electronic mail to subscribed clients based upon hard copy apparatus status changes.

Morgan et al. instead discloses a more generalized messaging system with the same function in mind, to send messages to subscribed clients based on hard copy apparatus status changes.
(Column 21, lines 44-52) and (Column 22, lines 25-30)

The examiner takes official notice that the use of electronic mail as a mechanism for sending messages to inform users of status changes was well known in the art at the time of invention. For example, Tanaguchi et al, US patent 5,999,707 cites email as a generic possibility to informing a user that the owner status of a print job has changed. (Column 8, Lines 55-65)

It would have been obvious to one of ordinary skill in the art at the time of invention to use e-mail as a notification mechanism to send to subscribed clients based upon hard copy apparatus status changes given the motivation that it is a well known and widely used messaging mechanism with third party software support already available on many systems,

In reference to claim 3:

Morgan et al. discloses all of claim 3 except:

A web server component having means for providing web-based clients with an HTML interface application compatible therewith and having means for thereafter communicating with each of said web-based clients via said HTML interface application.

Morgan et al. instead discloses a more generalized system in which a software component having means for providing network clients with an interface compatible therewith and having means for thereafter communicating with each of the network clients through a software application. (Column 8, lines 8-42) Furthermore in a communication system where a client makes a request to the server, and the server responds, a server component of some kind is inherent to the server, because the server would require some software or hardware from which to receive and process queries. Additionally it is also inherent that any client that may make a request would require some kind of interface as well. The client would need to interface from which to receive commands from outside.

The examiner takes official notice that client/server setups where the servers have a web component, and provide web-based clients with an HTML interface, and communicating through that interface was well known to those of ordinary skill in the art at the time of invention. For example. Austin et al, US patent 5,946,458 discloses a system like this, as do Levine et al, US patent 5,974,234 (Figure 5) and Savitzky et al, US patent 6,012,083 Figure 2.

It would have been obvious to one of ordinary skill in the art at the time of invention to use a web component interface with Morgan et al. given that a web-component server and HTML interface application are widely used and understood by the public, with third party support available, and would be convenient to new users because of the general familiarity with using an HTML interface setup.

In reference to claim 4:

Morgan et al., in light of the rejection of claim 3, discloses all of claim 4 except:

Means for generating requested HTML pages dynamically from provided predetermined templates on-board and for processing web-based clients input to said pages.

Morgan instead discloses the use of an application that would dynamically redisplay information.

The examiner takes official notice that generating requested HTML pages dynamically from provided predetermined templates on-board and for processing web-based clients input to said pages are well known in the art. Examples of languages that are used for the purpose of

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generating requested HTML pages dynamically for processing web-based client inputs are ASP, Coldfusion, JSP, Perl. Additionally, Savitzky et al. discloses this mechanism in the background of his invention. (Column 1, line 62- Column 2, line 20), where the new page is generated by the execution of a CGI script.

Austin et al. also discloses the generation of HTML files on (Column 9, lines 17-67). This mechanism was also commonly used in search engines Altavista, Lycos, Google, Yahoo, Hotbot, Excite, and other search utilities on the Internet at the time of invention.

It would have been obvious to one of ordinary skill in the art at the time of invention to dynamically generate HTML pages for processing web-based client input to said pages given that HTML is a static language, and by dynamically generating HTML pages, one can customize an HTML page to return the responses requested by the web-based client.

In reference to claim 5:

Morgan et al., in light of the rejection of claim 4, discloses all of claim 5, except wherein

Said HTML pages are interactive pages from the templates enabling the clients to specify electronic mail server settings and to configure notification events.

Morgan et al. instead discloses an application where the clients can specify message settings in which clients may be notified only of the events they wish to be notified. (Column 21, line 44) – (Column 22, line 2) and (Column 22, lines 25-30)

The examiner takes official notice that specifying electronic mail server settings and notifications events were well known to those of ordinary skill in the art at the time of invention.

It would have been obvious to one of ordinary skill in the art at the time of invention to specify email settings and to configure notification events through email in Morgan et al. given that email was a well known alert system, choosing to implement that in Morgan et al. would allow a user to be notified in a manner in which he or she was already likely to be familiar with.

In reference to claim 6:

In light of the combination set forth in claim 4, Morgan (Column 30, lines 19-65) discloses a method comprising:

the interactive pages enabling the clients to specify new configurations for subcomponents of said means for deciphering messages, where the print commands and print requests specify new configurations for the subcomponents to decipher messages. Information specifying how the request is to be fulfilled may be sent with the DATA command.

Claim 7 is rejected for the same reason as claim 6.

In reference to claim 8:

Morgan(Column 12, lines 1-15) discloses the invention as set forth in claim 4, the means for deciphering message comprising:

Means for filtering an incoming client message based on header data content, where the means for routing packets depends on packet headers specifying the information within.

In reference to claim 9:

In light of the rejection of claim 2, Morgan(Column 12, lines 10-15) discloses the invention as set forth in claim 8, the means for routing deciphered messages comprising:

Means for receiving filtered electronic mail messages and providing appropriate interaction with components of the server subsystem by examining the content described by an associated header of the message and acting on it, where the messages are email messages and components of the server subsystem are server elements.

In reference to claim 10:

Morgan(Column 12, lines 10-15) discloses the invention as set forth in claim 2, the means for respectively receiving discriminatively routed messages and for executing said tasks associated with hard copy apparatus controls comprising:

Interfaced with said hard copy apparatus, means for abstracting hard copy apparatus operational states, where the operational states include PENDING or ACCEPTED. Morgan(Column 30, lines 19-37)

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Interfaced with said hard copy apparatus, means for print job controlling, where the means for print job controlling are in the commands CONNECT, SET NEXT-JOB. Morgan(Column 30, lines 19-37)

Interfaced with said means for abstracting, means for data storage managing, where the data storage managing and means for it, is used to search through other databases to complete the print instructions. Morgan(Column 31, lines 10-43)

Claim 11 is rejected for the same reasons as claim 2.

In reference to claim 12:

Morgan(Column 30, lines 19-37) discloses the invention comprising:

The means for abstracting providing a status subserver component including a portal with said hard copy apparatus for transmitting data representing each operational state in a client-server model, where the status subserver component transmits the operational states to its clients.

In reference to claim 13:

Morgan(Column 25, lines 30-42) discloses the invention as set forth in claim 12, the status subserver component further comprising:

Means for transposing hard copy apparatus device specific language into a language for use by other server components, where the languages include the Local print server protocol.

Claim 14 is rejected for the same reasons as claim 38.

In reference to claim 15:

Morgan et al. fails to disclose a means for data storage managing comprising:

A COM executable server subcomponent for saving and retrieving electronic mail and hard copy apparatus operational state notification settings.

The examiner takes official notice that COM or Component Object Module was a well known technology and interface to those of ordinary skill in the art at the time of invention.

It would have been obvious to one of ordinary skill in the art the time of invention to implement the server subcomponents in COM, given that fact that it was a widely known technology for building software components, especially components that would send messages to each other, the advantage being the modular construction of the software allowing for better code reuse, and conceptually simpler implementation. (separation of concerns in software design)

In reference to claim 16:

Morgan(Column 21, lines 44-65) discloses the invention as set forth in claim 10, the means for data storage managing further comprising:

Subcomponents for registering with the status subserver component for predetermined printer operational state change notification events, where the status subserver component is the notification initialization facility which can predetermine printer operational state change events to the clients that are registered for them.

In reference to claim 17:

Morgan(Column 21, lines 44-65) discloses the invention further comprising:

When at least one of said events occurs, the status subserver provides a call back into the means for data storage managing which then takes appropriate action pursuant to client registration configurations by sending associated electronic mail to all subscriber clients registered for providing notification of said events.

Claim 18 is rejected for the same reasons as claim 3.

Claim 19 is rejected for the same reasons as claim 4.

In reference to claim 20:

Morgan(Column 21, lines 44-65)

Providing the requesting client with means for reviewing and modifying remote diagnostic settings to get specific hard copy apparatus operational state reports, where the means for the requesting client to review and modify diagnostic settings may be pursued through the notification facility.

Claim 21 is rejected for the same reasons as set forth by the combinations in claims 1, 2, and 3.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply an email messaging system and an HTML user interface with the system of Morgan et al., because

receiving status notifications through email and providing an internet interface were well understood to people giving the advantage of allowing new users to quickly learn such an interface. An additional advantage would be wide third party support, allowing the users to access the embedded server through widely used software such as Internet Explorer or Outlook, allowing the users to avoid having to learn new software, as well as allowing the developers to avoid developing these aspects of the invention.

Claim 22 is rejected for the combination as set forth in claim 21 above, where the firewall preventing remote access to said apparatus is the server.

Claim 23 is rejected for the same reasons as claim 4.

Claim 24 is rejected for the same reasons as claim 4, where the template produces the page, and the page informs the clients of the status of the apparatus. (Morgan et al., Column 21, lines 44 - 52)

Claim 25 is rejected for the same reasons as claim 4, where said templates including computer code controlling apparatus functionality, where the computer code controlling apparatus functionality is located both on the printing client which initiates a print job, and the server, which relays the control message to the printer. (Morgan et al., Column 30, lines 19-37)

Claim 26 is rejected for the same reasons as claim 2.

Claim 27 is rejected for the combination as set forth above in the rejection of claim 2, where the predetermined messages are disclosed in (Morgan et al., Column 30, Lines 19-37) and are messages, which may be in the form of email, sent to the print server.

In reference to claim 28:

In light of the rejection of claim 2, (Morgan et al., Column 30, Lines 19-37) discloses the apparatus as set forth in claim 21 comprising:

Said computer code routing data including computer code performing apparatus diagnostics via predetermined electronic mail received, where the diagnostic messages may include Pending status or Accepted Status depending on the current state of the apparatus.

In reference to claim 29:

In light of the rejection of claim 2, (Morgan et al., Column 30, Lines 19-37) discloses the apparatus as set forth in claim 21 comprising:

Said computer code routing data including computer code performing apparatus hard copy printing operation via predetermined electronic mail received, where the hard copy printing operation is as noted by an Accepted Status message.

In reference to claim 30:

In light of the rejection of claim 2, (Morgan et al., Column 26, lines 20-26) discloses the apparatus as set forth in claim 21 comprising:

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Said computer code routing data including computer code responding to device status queries via predetermined electronic mail received, where the status query is the Status message responding by informing clients of the status through email.

Claim 32 is rejected for the same combination as claim 3.

In reference to claim 33:

Morgan discloses a method comprising the step of:

Operating functions of the computer peripheral apparatus via at least one of said protocols, where said protocol is the Local Print Server Protocol, and Server Manager External Protocol (Column 25, line 29- Column 30, line 15)

Claim 34 is rejected for the same combination as claim 2.

In reference to claim 35:

Morgan(Column 28, lines 13-45) discloses a method comprising the step of:

Operating diagnostic and maintenance functions on the computer peripheral apparatus via at least one of said protocols, where the diagnostic and maintenance functions include determining the Status, and Resource Status.

Claim 36 is rejected for the same reasons as claim 2.

In reference to claim 37:

Morgan(Column 28, lines 13-45) discloses a method comprising the step of:

Reporting current operational states of the computer peripheral apparatus via said protocols, where the operational states are reported as ACCEPTED, PENDING, COMPLETED, RELEASED.

In reference to claim 38:

Morgan(Column 30, line 47- Column 31, line 1) discloses a method as set forth comprising:

Abstracting operational states of the computer peripheral apparatus (Connect, Pending Status, Accepted) in a virtual multiplexer for permitting and managing data such that a plurality of clients outside of said firewall can communicate substantially simultaneously with the apparatus, where the server system communicates with a plurality of clients at substantially the same moment, but where only one may be services at any given moment.

Claims 39, 40, 41 are rejected for the same reasons as claim 21.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M Ho whose telephone number is (703)305-8029. The examiner can normally be reached on M-F from 8:30am – 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached at (703)308-4789. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5484.

TMH

March 15th 2003

Matthew Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137